

Patent Application
Attorney Docket No.: 26346-1

REMARKS

The following remarks are in response to the Office Action mailed on July 16, 2003. Claims 1, 2, 4, 5, 7-12, 14, 15, 17-19 remain pending in this application. Dependent claims 3, 6, 13, and 16 have been cancelled and re-presented in independent form as claims 20, 21, 22 and 23 respectively.

In the Office Action, Claim 18 was objected to as having a minor typographical error. Claims 10 and 17-19 were rejected under 35 U.S.C. § 102(b) as being anticipated by Solberg et al. (U.S. Patent No. 5,085,535). Claims 1, 2, 4, 5, 8, 9, 11, 12, 14 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Solberg et al. in view of Howard (U.S. Patent No. 4,964,842). Claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Solberg et al. in view of Howard and further in view of Blanchfield et al. (U.S. Patent No. 5,531,536). Response is hereby made to these objections and rejections.

In addition to the above objections and rejections, claims 3, 6, 13 and 16 were objected to as depending from rejected base claims. The Office Action states, however, that these claims would be allowable if rewritten in independent form to include all of the limitations of the base claims and any intervening claims. Applicant thanks the Examiner for the indication of allowable subject matter and has re-presented claims 3, 6, 13 and 16 in independent form, including the limitations of the base claim and any intervening claims, as claims 20, 21, 22 and 23 respectively. It is believed, therefore, that claims 20-23, as re-presented, are now allowable.

As a preliminary matter, applicant has amended claim 18 to correct the typographical error. Applicant respectfully

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requests that the Examiner's objection to claim 18 be withdrawn.

Independent claim 10 was rejected as being anticipated by Solberg et al. Claim 10 includes a limitation that the slitter apparatus include a land and a recess "wherein engagement of the land with the recess provides both axial and radial alignment" of a first semi-circular member with a second semi-circular member. Claim 10 further includes limitations that the land include no more than one planar surface substantially parallel to the mating surface from which the land projects and that the recess include no more than one planar surface substantially parallel to the mating surface into which the recess protrudes.

The slitter apparatus of Solberg et al. also uses lands and recesses to provide both axial and radial alignment of two semi-circular members. The lands and recesses of Solberg et al., however, have more than one planar surface that is substantially parallel to the mating surfaces from which they project or protrude. For example, Solberg et al. discloses a multi-level land formed from projections 34 and 40 and a multi-level recess formed from protrusions 52 and 58. Engagement of projection 34 with protrusion 52 provides for radial alignment of semi-circular member 26 with semi-circular member 28 while engagement of projection 40 with protrusion 58 provides for axial alignment of members 26 and 28.

Thus, in order to provide for both axial and radial alignment of members 26 and 28, Solberg et al. requires the use of a multi-level land formed from projections 34 and 40 and a multi-level recess formed from protrusions 52 and 58. Because projection 40 is taller than

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projection 34, the top planar surface of projection 40 is in a different plane than the top planar surface of projection 34 and thus the multi-level lands formed from projections 34 and 40 have more than one planar surface that is substantially parallel to the mating surface of semi-circular member 26 from which they project. Similarly, because protrusion 58 is deeper than protrusion 52, the bottom planar surface of protrusion 58 is in a different plane than the bottom planar surface of protrusion 52 and thus the multi-level recesses formed from protrusions 52 and 58 also have more than one planar surface that is substantially parallel to the mating surface into which they protrude.

Because Solberg et al. does not disclose a single level land engageable with a single level recess that upon engagement provides for both axial and radial alignment, Solberg et al. does not anticipate claim 10. It is believed, therefore, that claim 10 is allowable.

Claims 11, 12, 14, 15, 17 and 18, which depend from claim 10, each add one or more limitations to claim 10. Each of claims 11, 12, 14, 15, 17 and 18 is therefore narrower in scope than claim 10 from which it depends and should also be allowed.

Independent claim 19 was also rejected as being anticipated by Solberg et al. Claim 19 includes limitations that the slitter apparatus include a centrally disposed land located inward from the outer edges of a mating surface of a first semi-circular member and a centrally disposed recess located inward from the outer edges of a mating surface of a second semi-circular member wherein upon engagement of the first and second semi-circular members, the centrally disposed land and the centrally disposed recess are hidden.

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inside of the cylindrical body formed by the two semi-circular members.

As previously stated, the slitter apparatus of Solberg et al. also includes lands and recesses. The lands and recesses of Solberg, however, are not centrally disposed inward from the outer edges of semi-circular members 26 and 28 and are not hidden inside of the slitter apparatus formed from the engagement of semi-circular members 26 and 28. For example, projection 34, which forms a portion of the land of Solberg et al., extends the entire axial width of semi-circular member 26 between outer marginal walls 16 and 18. Thus projection 34 is not centrally disposed inward from marginal walls 16 and 18 and is also not hidden when semi-circular members 26 and 28 are engaged with each other.

Similarly, projections 52 and 58, which form the recess of Solberg et al. each extend to the outer walls of semi-circular member 28. Projection 52, for example, extends the entire axial width of semi-circular member 28 between outer marginal walls 16 and 18. Thus projection 52 is not centrally disposed inward from marginal walls 16 and 18 and is not hidden inside of slitter apparatus 10 when semi-circular members 26 and 28 engage with each other. Projection 58, likewise, extends the entire radial width of semi-circular member 28 between inner cylindrical wall 14 and outer cylindrical wall 12. Thus projection 58 is also not centrally disposed inward from cylindrical walls 12 and 14 and is not hidden inside of slitter apparatus 10 when semi-circular members 26 and 28 engage with each other.

Because Solberg et al. does not disclose a land and a recess that is centrally disposed inward from the outer edges of the semi-circular member on which they are located such that the land and recess are hidden inside of

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the cylindrical body formed by engagement of the semi-circular members, Solberg et al. also does not anticipate claim 19. It is believed, therefore, that claim 19 is also allowable.

Independent claim 1 was rejected as being unpatentable over Solberg et al. in view of Howard. Claim 1 includes a limitation that the slitter apparatus include a rectangular land having a plurality of sidewall surfaces wherein the corners formed between adjacent sidewall surfaces of the rectangular land are radiused. Radiused corners provide a clearance gap between the corners of the land and the corners of the recess in which the land is received.

As a starting point, it should be noted that Howard does not teach radiusing the corners of lands between two adjacent sidewalls (or for that matter, between the two adjacent sidewalls of a recess). Rather, Howard teaches lands 61, 63 that have curved semi-circular ends between two opposing parallel sidewalls. Nothing in Howard teaches or suggests radiusing the corners between adjacent sidewalls of a land as required by claim 1.

In addition, as previously stated, the slitter apparatus of Solberg et al. includes a land formed from projections 34 and 40. The land formed from projections 34 and 40 engages with a recess formed from projections 52 and 58. Projection 58 runs the entire radial width of slitter apparatus 10 from inside cylindrical surface 14 to outside cylindrical surface 12. Likewise, projection 52 runs the entire axial width of slitter apparatus 10 between outer marginal walls 16 and 18. As a result, the ends of each projection 52 and 58 are open and projections 52 and 58 do not have adjacent sidewalls. Projections 52 and 58

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therefore also do not have corners between adjacent sidewalls because their ends are open.

Because the recess formed from projections 52 and 58 does not have corners, there is no need to provide a clearance gap between the corners of the lands of Solberg et al. and the recesses of Solberg et al. With no need for a clearance gap, there is no motivation to combine the teachings of Howard with the teachings of Solberg et al. to provide the radiused corners required by claim 1.

Because nothing in Howard teaches or suggests lands having radiused corners and because there is no motivation to combine the teachings of Solberg et al. with the teachings of Howard, it would not have been obvious to combine the teachings of Solberg et al. with the teachings of Howard to provide the claimed invention of claim 1. It is believed, therefore, that independent claim 1 is also allowable.

Claims 2, 4, 5, and 7-9, which depend from claim 1, each add one or more limitations to claim 1. Each of claims 2, 4, 5, and 7-9 is therefore narrower in scope than claim 1 from which it depends and should therefore also be allowed.

It should be noted that although claims 2, 4, 12 and 15 are allowable because they depend from an allowable base claim, these claims are also allowable because it would not have been obvious to combine the teachings of Solberg et al. with the teachings of Howard to arrive at the inventions of claims 2, 4, 12 and 15. This is because Howard does not teach radiusing (or chamfering) the corners formed between two adjacent sidewalls of a recess (recesses 65 and 67 of Howard have curved semi-circular ends between their opposing parallel sidewalls, not between adjacent sidewalls) and

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because the recesses of Solberg et al. do not have corners that require radiusing (or chamfering). Furthermore, radiusing (or chamfering) the corners of the recesses between adjacent sidewalls is not merely a change in the shape of a prior art device that is a design consideration within the skill of the art.

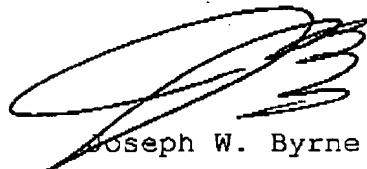
Even though claims 8 and 17 are allowable because they depend from an allowable base claim, it should be noted that claim 17 is not anticipated by Solberg et al. and it would not have been obvious to combine the teachings of Solberg et al. with the teachings of Howard to arrive at the inventions of claims 8 and 17 because the lands and recesses of Solberg et al. are not centrally disposed.

Finally, even though claims 11 and 14 are allowable because they depend from an allowable base claim, it should be noted that it also would not have been obvious to combine the teachings of Solberg et al. with the teachings of Howard to arrive at the invention of claims 11 and 14 because Howard does not teach radiusing (or chamfering) the corners formed between two adjacent sidewalls of a land and because the lands of Solberg et al. do not have corners that require radiusing (or chamfering). Furthermore, radiusing (or chamfering) the corners of the lands between adjacent sidewalls is not merely a change in the shape of a prior art device that is a design consideration within the skill of the art.

Accordingly, in view of the above amendments and remarks, Applicant respectfully submits that the application should be allowed. The Examiner is invited to telephone the undersigned below if it will aid in the prosecution of this application.

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Respectfully submitted,



Joseph W. Byrne
Registration No. 43,522

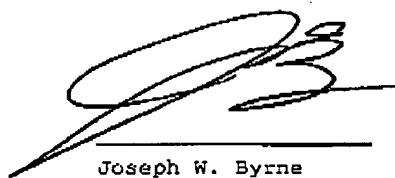
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BOARDMAN, SUHR, CURRY & FIELD LLP
1 South Pinckney Street, Fourth Floor
P.O. Box 927
Madison, WI 53701-0927
Phone: 608-257-9521
Fax: 608-283-1709
@PFDesktop\::ODMA/WORLD0X/F:/DOCS/WD/Z6346/1/RESP1.WPD

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Date: January 16, 2004



Joseph W. Byrne
Reg. No. 43,522